In re Application of NATHAN et al.
Application Serial No. 09/541,461

AMENDMENTS TO THE CLAIMS

1-18. (Canceled)

19. (Currently amended) A method for securing data communication between a client in an internal network and a server in an external network by way of a ~~a~~ an application-level gateway proxy server in the internal network, the method comprising:

performing, at the proxy server, a network address translation upon a stream of packets originating from the client, wherein the network address translation is performed at a packet level;

filtering, at the proxy server, the stream of packets, ~~such that~~ wherein the filtering is transparent to the client, and wherein the filtering is performed at a stream level; and

transmitting, at the proxy server, the packets to the server after the packets are filtered.

20. (Currently amended) The method of claim 19, further comprising:

filtering, at the proxy server, a second stream of packets originating from the server in the external network, wherein the filtering is transparent to the client, and wherein the filtering is performed at a stream level;

performing, at the proxy server, a reverse network address translation upon the packets in the second stream, wherein the reverse network address translation is performed at a packet level; and

transmitting, at the proxy server, the packets in the second stream after the packets are filtered.

21. (Currently amended) A computer-readable medium having instructions stored thereon for execution by a processor to perform ~~the~~ a method ~~of claim 19~~ for securing data communication between a client in an internal network and a server in an external network by way of an application-level gateway proxy server in the internal network, the method comprising:

performing, at the proxy server, a network address translation upon a stream of packets

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originating from the client, wherein the network address translation is performed at a packet level;

    filtering, at the proxy server, the stream of packets, wherein the filtering is transparent to the client, and wherein the filtering is performed at a stream level; and

    transmitting, at the proxy server, the packets to the server after the packets are filtered.

22. (Currently amended) A system for securing data communication across an external computer network, comprising:

    a client located in an internal computer network;

    a server located in the external computer network and in communication with the client; and

    a an application-level gateway proxy device located in the internal computer network and comprising components for (1) performing, at a packet level, a network address translation upon a stream of packets originating from the client and (2) filtering, at a stream level, the stream of packets and transmitting the packets to the server, wherein such that the filtering is transparent to the client.

23. (Currently amended) The system of claim 22, wherein the components of the proxy device comprise:

    a first component for filtering said stream of packets, and also for filtering, at a stream level and transparently to the client, a second stream of packets originating from the server; and

    a second component for performing said network address translation, and also for performing, at a packet level, a reverse network address translation upon with respect to the packets in the second stream and transmitting the packets in the second stream to the client.

24. (Currently amended) A An application-level gateway proxy device located in an internal network, comprising:

    routines a component for performing, at a packet level, a network address translation upon with respect to a stream of packets originating from a client in the internal network, where wherein the client is communicating the stream of packets to a server located in an external network;

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~~routines~~ a component for filtering, at a stream level, the stream of packets, wherein ~~such that~~ the filtering is transparent to the client; and

~~routines~~ a component for transmitting the packets to the server after the packets are filtered.

25. (Currently amended) The proxy device of claim 24, further comprising:

~~routines~~ a component for filtering, at a stream level and transparently to the client, a second stream of packets originating from the server;

~~routines~~ a component for performing, at a packet level, a reverse network address translation upon the packets in the second stream; and

~~routines~~ a component for transmitting the packets in the second stream to the client.

26. (New) The computer-readable medium of claim 21, wherein the method further comprises:

filtering, at the proxy server, a second stream of packets originating from the server in the external network, wherein the filtering is transparent to the client, and wherein the filtering is performed at a stream level;

performing, at the proxy server, a reverse network address translation upon the packets in the second stream, wherein the reverse network address translation is performed at a packet level; and

transmitting, at the proxy server, the packets in the second stream after the packets are filtered.

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